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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/631,947

07/30/2003

Zhihui Chen

01CON218P-CIP

1770

53375 7590 05/30/2008

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EXAMINER

O'CONNOR, BRIAN T

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

05/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/631,947	Applicant(s) CHEN ET AL.	
	Examiner BRIAN T. O'CONNOR	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6,7,9,12,13,15,18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,7,9,12,13,15,18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Appeal Brief

1. In view of the appeal brief filed on 03/03/2008, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

[signature].

2. Claims 1, 3, 6, 7, 9, 12, 13, 15, 18, and 20 are currently pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 6, 7, 9, 12, 13, 15, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Schulzrinne et al. ("RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals", Internet-Draft, November 28, 1999, IETF; hereafter Schulzrinne).

With respect to claims 1 and 7, AAPA discloses a communication technique using a first gateway (120 of Figure 1), a first modem (110 of Figure 1), a telephone line between the first gateway and the first modem (114, 112 of Figure 1), a second gateway (140 of Figure 1), a second modem (150 of Figure 1), a telephone line between the second gateway and the second modem (142, 144 of Figure 1) and a packet network for communication between the first gateway and the second gateway (130 of Figure 1). AAPA explains when the second modem receives a call setup request from the first modem (page 3, lines 9-14) the second modem sends an answer tone to the second gateway (page 3, lines 18-20). The answer tone is received, detected, and processed by the first gateway (pg 4, lines 8-9). The first gateway also detects a phase reversal in the answer tone (pg 4, lines 21-22) so that its echo canceller is disabled.

However, AAPA fails to disclose transmitting a first message to indicate an answer tone to the second gateway over the packet network and sending a second message indicating a phase reversal to the second gateway over the packet network.

Schulzrinne discloses a method for telephone gateways connected to packet networks where the gateway sends an encoded audio event packet (pg 3, section 3.2; event packet is a message) for fax-related tones (pg 8, section 3.11) including an ANS

(answer tone) and /ANS (answer tone with phase reversals) encoded with decimal values of 32 and 33 (pg 10, table 3). The audio event packet is sent by a gateway to another gateway or receiver (pg 2, Section 2, last partial paragraph) as soon as the audio event is recognized or detected (pg 5, section 3.6, first sentence).

Schulzrinne realizes the benefit of improved tone response by using event packets instead of low-rate voice codes which cannot guarantee the quality of tone signals (pg 1, section 1, first and second paragraphs). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the event packets of Schulzrinne to send messages for the answer tone and phase-reversed answer tone detection events in AAPA.

With respect to claims 13 and 18, AAPA discloses a communication technique using a first gateway (120 of Figure 1), a first modem (110 of Figure 1), a telephone line between the first gateway and the first modem (114, 112 of Figure 1), a second gateway (140 of Figure 1), a second modem (150 of Figure 1), a telephone line between the second gateway and the second modem (142, 144 of Figure 1) and a packet network for communication between the first gateway and the second gateway (130 of Figure 1). AAPA explains when the first gateway receives a call setup request from the first modem (page 3, lines 9-14) the first gateway calls the second gateway (page 3, line 10). An answer tone, sent by the second modem, is received, detected, and processed by the first gateway (pg 4, lines 8-9). The first gateway also detects a phase reversal in the answer tone (pg 4, lines 21-22) so that its echo canceller is disabled.

However, AAPA fails to disclose transmitting a first message to indicate an answer tone to the second gateway over the packet network, sending a second message indicating a phase reversal to the second gateway over the packet network, and disabling an echo canceller in response to the second message indicating a phase reversal.

Schulzrinne discloses a method for telephone gateways connected to packet networks where the gateway sends an encoded audio event packet (pg 3, section 3.2; event packet is a message) for fax-related tones (pg 8, section 3.11) including an ANS (answer tone) and /ANS (answer tone with phase reversals) encoded with decimal values of 32 and 33 (pg 10, table 3). The audio event packet is sent by a gateway to another gateway or receiver (pg 2, Section 2, last partial paragraph) as soon as the audio event is recognized or detected (pg 5, section 3.6, first sentence). The /ANS event packet will disable echo cancellers (pg 8, section 3.11, **/ANS**).

Schulzrinne realizes the benefit of improved tone response by using event packets instead of low-rate voice codes which cannot guarantee the quality of tone signals (pg 1, section 1, first and second paragraphs). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the event packets of Schulzrinne to send messages for the answer tone and phase-reversed answer tone detection events in AAPA.

With respect to claims 3, 9, 15, and 20, AAPA does not disclose a packet message that indicates an amplitude-modulated answer tone with phase reversal.

Schulzrinne discloses an encoding symbol for an amplitude-modulated answer tone with phase reversal (pg 8, Section 3.11 Data Modem and Fax Events; see **/ANSam**).

Schulzrinne realizes the benefit of improved tone response by using event packets instead of low-rate voice codes which cannot guarantee the quality of tone signals (pg 1, section 1, first and second paragraphs). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the event packets of Schulzrinne to send messages for the answer tone and phase-reversed answer tone detection events in AAPA.

With respect to claims 6 and 12, AAPA further discloses that the second gateway also has an echo canceller that is disabled when an answer tone is detected (pg 4, lines 21-22).

AAPA does not disclose receiving a packet message that indicates an answer tone with a phase reversal from the first gateway.

Schulzrinne discloses an encoding symbol for an answer tone with phase reversal (pg 8, Section 3.11 Data Modem and Fax Events; see **/ANS**).

Schulzrinne realizes the benefit of improved tone response by using event packets instead of low-rate voice codes which cannot guarantee the quality of tone signals (pg 1, section 1, first and second paragraphs). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the event packets of Schulzrinne to send messages for the answer tone and phase-reversed answer tone detection events in AAPA.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN T. O'CONNOR whose telephone number is (571)270-1081. The examiner can normally be reached on 9:00AM-6:30PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BTO/
Brian T. O'Connor
May 16, 2008
Patent Examiner

/Hassan Kizou/

Supervisory Patent Examiner, Art Unit 2619